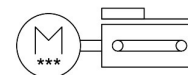


# Toothed belt axis unit ELGS-TB-KF-60-1800-ST-M-H1-PLK-AA

Part number: 8083578

FESTO



## Data sheet

| Feature  | Value   |
|--|---|
| Effective diameter of drive pinion                 | 24.83 mm  |
| Working stroke                                     | 1800 mm   |
| Size   | 60  |
| Stroke reserve                                     | 0 mm  |
| Toothed-belt stretch                               | 0.124 %   |
| Toothed-belt pitch                                 | 3 mm  |
| Mounting position                                  | Horizontal  |
| Guide  | Recirculating ball bearing guide  |
| Design   | Electromechanical linear axis<br>With toothed belt<br>With integrated drive                             |
| Position detection                                 | Motor encoder<br>Via proximity switch   |
| Rotor position sensor                              | Absolute single-turn encoder  |
| Rotor position sensor, encoder measuring principle | Magnetic  |
| Temperature monitoring                             | Switch-off for excessive temperature<br>Integrated precise CMOS temperature sensor with analogue output |
| Additional functions                               | User interface<br>Integrated end-position sensing   |
| Display  | LED   |
| Max. acceleration                                  | 6 m/s <sup>2</sup>  |
| Max. speed   | 1.3 m/s   |
| Repetition accuracy                                | ±0.1 mm   |
| Features of digital logic outputs                  | Configurable<br>Not galvanically isolated   |
| Duty cycle   | 100%  |
| Insulation protection class                        | B   |
| Max. current digital logic outputs                 | 100 mA  |
| Max. current consumption                           | 5.3 A   |
| Max. current consumption, logic                    | 0.3 A   |
| Nominal voltage DC                                 | 24 V  |
| Nominal current                                    | 5.3 A   |

| Feature   | Value   |
|---|---|
| Parameterisation interface  | IO-Link<br>User interface   |
| Permissible voltage fluctuations                                  | +/- 15%   |
| Power supply, connection type                                     | Plugs   |
| power supply, connection system                                   | M12x1, T-coded according to EN 61076-2-111  |
| Power supply, number of pins/wires                                | 4   |
| Approval  | RCM trademark   |
| CE mark (see declaration of conformity)                           | To EU EMC Directive<br>In accordance with EU RoHS Directive   |
| LABS (PWIS) conformity  | VDMA24364 zone III  |
| Storage temperature   | -20 °C...60 °C  |
| Relative air humidity   | 0 - 90%   |
| Degree of protection  | IP40  |
| Ambient temperature   | 0 °C...50 °C  |
| Note on ambient temperature                                       | Power must be reduced by 2% per K at ambient temperatures above 30°C.                                   |
| 2nd moment of area Iy   | 441000 mm <sup>4</sup>  |
| 2nd moment of area Iz   | 542000 mm <sup>4</sup>  |
| Max. force Fy   | 3641 N  |
| Max. force Fz   | 3641 N  |
| Fy at theoretical life value of 100 km (only guide consideration) | 13400 N   |
| Fz at theoretical life value of 100 km (only guide consideration) | 13400 N   |
| Mx at theoretical life value of 100 km (only guide consideration) | 107 Nm  |
| My at theoretical life value of 100 km (only guide consideration) | 117 Nm  |
| Mz at theoretical life value of 100 km (only guide consideration) | 117 Nm  |
| Max. feed force Fx  | 65 N  |
| Reference value effective load, horizontal                        | 4 kg  |
| Feed constant   | 78 mm/U   |
| Moving mass   | 482 g   |
| Moving mass for 0 mm stroke                                       | 482 g   |
| Weight of slide   | 139 g   |
| Product weight  | 10695 g   |
| Dynamic deflection (moving load)                                  | 0.05% of the axis length, max. 0.5 mm   |
| Static deflection (load in standstill)                            | 0.1% of the axis length   |
| Number of digital logic outputs 24 V DC                           | 2   |
| Number of digital logic inputs                                    | 2   |
| Working range of logic input                                      | 24 V  |
| Features of logic input   | Configurable<br>Not galvanically isolated   |
| IO-Link, Process data content OUT                                 | Move in 1 bit<br>Move out 1 bit<br>Quit Error 1 bit<br>Move intermediate 1 bit                          |
| IO-Link, Process data content IN                                  | State Device 1 bit<br>State In 1 bit<br>State Intermediate 1 bit<br>State Move 1 bit<br>State Out 1 bit |
| IO-Link, Service data IN  | 32-bit force<br>32-bit position<br>32-bit speed   |
| IO-Link, Data storage required                                    | 0.5 KB  |
| Switching logic for inputs  | PNP (positive switching)  |
| Logic interface, connection type                                  | Plug  |
| Logic interface, connection technology                            | M12x1, A-coded according to EN 61076-2-101  |
| Logic interface, number of pins/wires                             | 8   |

| Feature               | Value  |
|-----------------------|--|
| Type of mounting      | Via female thread<br>Via centring sleeve and pin<br>With accessories |
| Material end cap      | Painted die cast aluminium   |
| Material profile      | Anodised wrought aluminium alloy                                     |
| Note on materials     | RoHS-compliant   |
| Material cover tape   | Stainless steel strip  |
| Material guide slide  | Tempered steel   |
| Material guide rail   | Tempered steel   |
| Material toothed belt | Polychloroprene with glass fibre                                     |